

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
4 March 2004 (04.03.2004)

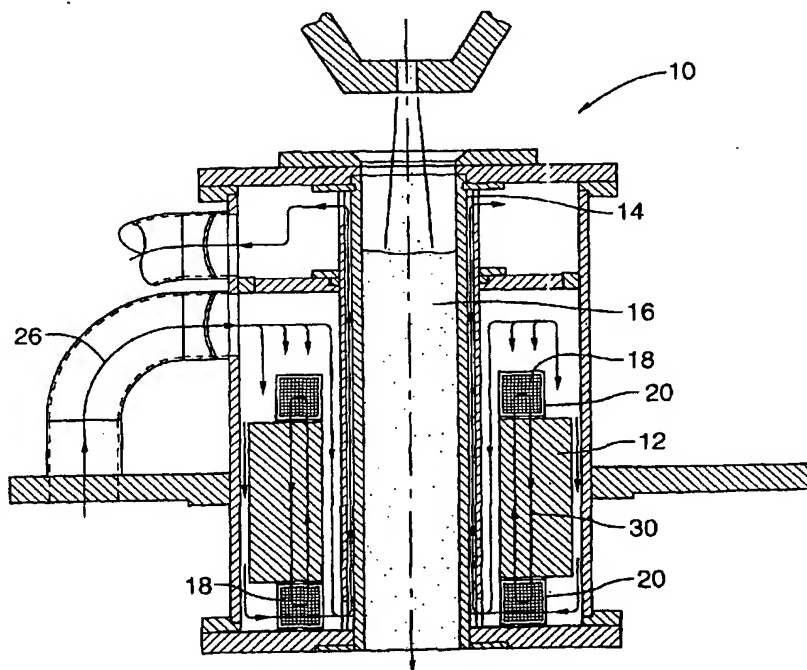
PCT

(10) International Publication Number  
**WO 2004/018128 A3**

- (51) International Patent Classification<sup>7</sup>: **B22D 11/11**, F27D 23/04, B22D 11/15
- (21) International Application Number: PCT/CA2003/001209
- (22) International Filing Date: 19 August 2003 (19.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 10/206,182 20 August 2002 (20.08.2002) US
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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: COOLING ELECTROMAGNETIC STIRRERS



(57) Abstract: Cooling of the electrical coils of an electromagnetic stirrer is effected using a ferrofluid. An electromagnetic stirrer, comprising: a cylindrical housing having an axial mold tube for receiving molten metal, an inner wall spaced from the mold tube and defining a cooling water flow channel, an electromagnetic stirring assembly surrounding the inner wall and spaced therefrom and from an outer wall, said stirring assembly comprising a yoke, a plurality of magnetic poles and electrical windings mounted on each of the magnetic poles, said plurality of magnetic poles and said electrical windings mounted on the magnetic poles being located in enclosed non-magnetic heat conductive housings filled with dielectric ferrofluid, an annular wall dividing said cylindrical housing into a larger lower chamber in which are located said enclosed non-magnetic heat conductive housings and a smaller

upper chamber, said inner wall defining having an inlet to said cooling water flow channel in fluid flow communication with the lower end of said lower chamber and an outlet from said cooling water flow channel in fluid flow communication with the upper end of said upper chamber, a cooling water inlet in fluid flow communication with the upper end of said lower chamber and a cooling water outlet in fluid flow communication with said upper chamber.

WO 2004/018128 A3



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:  
17 June 2004

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*